

WHAT IS CLAIMED IS:

1. An electronic camera comprising:

light emission means for emitting a light to an object, said light emission means performing a

5 preliminary light emission and a main light emission;

an imaging element for receiving a light reflected from the object during the preliminary light emission and converting the light into an electrical image signal;

10 amplifying means for amplifying the electrical image signal; and

setting means for setting a gain for said amplifying means and an amount of light for the main light emission, based on the electrical image signal.

15 2. The camera according to claim 1, wherein said setting means increases the gain when the electrical image signal fails to have a desired magnitude even if an amount of the light for the main light emission is set to a maximum.

20 3. The electronic camera according to claim 1, further comprising photograph mode selecting means for selecting a desirable one of a plurality of photograph modes, wherein said setting means sets the gain in accordance with the photograph mode selected by said
25 photograph mode selecting means.

4. The electronic camera according to claim 1, wherein the gain is not changed when a difference or a

ratio, in amount between the light reflected from the object during the preliminary light emission, and the light coming from the object when no light is emitted to the object is not more than a predetermined value.

5 5. The electronic camera according to claim 1, wherein said setting means generates an alarm when the gain is changed in the main light emission.

6. The electronic camera according to claim 2, further comprising photograph mode selecting means for
10 selecting a desirable one of a plurality of photograph modes, wherein said setting means sets the gain in accordance with the photograph mode selected by said photograph mode selecting means.

7. The electronic camera according to claim 2,
15 wherein the gain is not changed when a difference or a ratio, in amount between the light reflected from the object during the preliminary light emission, and the light coming from the object when no light is emitted to the object is not more than a predetermined value.

20 8. The electronic camera according to claim 2, wherein said setting means generates an alarm when the gain is changed in the main light emission.

9. The electronic camera according to claim 3,
25 wherein the gain is not changed when a difference or a ratio, in amount between the light reflected from the object during the preliminary light emission, and the light coming from the object when no light is emitted

to the object is not more than a predetermined value.

10. The electronic camera according to claim 3, wherein said setting means generates an alarm when the gain is changed in the main light emission.

5 11. The electronic camera according to claim 4, wherein said setting means generates an alarm when the gain is changed in the main light emission.

12. An electronic camera comprising:

light emission means for emitting a light to an
10 object in present amounts, said light emission means performing a preliminary light emission and a main light emission;

an imaging element for receiving a light reflected
from the object during the preliminary light emission
15 and converting the light into an electrical image signal;

amplifying means for amplifying the electrical
image signal, with a preset gain;

photograph means for comparing an amount of light
20 received when no light is emitted to the object, which is obtained from the electrical image signal, with a predetermined value to evaluate the amount of light received;

operating means for operating the light emission
25 means when an evaluation result shows that said received light amount is insufficient;

optimum setting value calculating means for

obtaining at least one of the main light emission amount and the gain from the amount of the light received when no light is emitted to the object and the amount of the light received during the preliminary light emission; and

setting means for setting at least one of the light emission amount obtained during the main light emission and the gain, as a set value.

13. An electronic camera comprising:

light emission means for emitting a light to an object in present amounts, said light emission means performing a preliminary light emission and a main light emission;

an imaging element for receiving a light reflected from the object during the preliminary light emission and converting the light into an electrical image signal;

amplifying means for amplifying the electrical image signal, with a preset gain;

photograph mode selecting means for selecting a desirable one of a plurality of photograph modes;

photograph means for comparing an amount of light received when no light is emitted to the object, which is obtained from the electrical image signal, with a predetermined value to evaluate the amount of light received;

operating means for operating the light emission

means when an evaluation result shows that said
received light amount is insufficient;

optimum setting value calculating means for
obtaining at least one of the main light emission
5 amount in said selected photograph mode and the gain
from the amount of the light received when no light is
emitted to the object and the amount of the light
received during the preliminary light emission; and

setting means for setting at least one of the
10 light emission amount obtained during the main light
emission and the gain, as a set value.

14. The electronic camera according to claim 13,
further comprising emission amount control means for
controlling a light emission amount during the
15 preliminary light emission and the main light emission
to a set value; and

gain control means for controlling the gain of
said amplifying means to a set value.

15. In a method of controlling an electric flash
20 photography performed by an electronic camera
comprising light emission means for emitting a light to
an object, said light emission means performing a
preliminary light emission and a main light emission,
an imaging element for receiving a light reflected from
25 the object during the preliminary light emission and
converting the light into an electrical image signal,
and amplifying means for amplifying the electrical

image signal with a preset gain, said method comprising:

selecting a desirable one of a plurality of photographing modes;

5 comparing an amount of light received when no light is emitted to the object, which is obtained from the electrical image signal, with a predetermined value to evaluate the amount of light received;

10 operating the light emission means when an evaluation result shows that the received light amount is insufficient;

15 obtaining at least one of the main light emission amount and the gain from the amount of the light received when no light is emitted to the object and the amount of the light received during the preliminary light emission;

setting at least one of the light emission amount obtained during the main light emission and the gain, as a set value; and

20 photographing the object with the main light emission amount set and the gain set.